

PROJECT DESCRIPTION

I. GENERAL

This project involves the construction of a new traffic signal at the intersection of US 13 Business (N Salisbury Blvd) and Olive Street. Removal of existing traffic signal at the intersection of US 13 Business and Baltimore Avenue, construction of pole and placement of video camera for vehicle detection on the west leg of Baltimore Avenue, and construction of Interconnect cable between Olive Street and Isabella Street in Wicomico County, Maryland.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA 6-phase, fully-actuated mode, with exclusive/permissive left turn phasing along US 13 Business (N Salisbury Blvd) and Olive Street/ Driveaway Entrance approaches running concurrently. Audible Pedestrian Countdown Signal Heads and Pushbuttons shall be installed on the north side of the intersection across US 13 Business. Video detection shall be installed for vehicle detection as indicated in the signal plan. Fire pre-emption will be provided for this location using "Opticom" detector eyes on the northbound and southbound approaches. The contractor shall coordinate the installation of traffic conduit under the sidewalk with the proposed drainage improvements along US 13 Business.
- For final pavement markings, refer to the pavement marking plans, as applicable; other than those detailed on the plan. All pavement markings shall be installed in accordance with Administration standards.
- The contractor shall be responsible for terminating all signal cables to the appropriate terminals and proper labeling of each cable.
- All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in the appropriate 800 series Standard Plates. The contractor shall verify ultimate grades prior to the installation of all signal equipment.
- Disconnecting and splicing of interconnect cable shall be performed per Interconnect plan (Refer to Sheet PIC-P000-US13). The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- The Contractor shall maintain the continuous operation of all interconnect, vehicular, pedestrian detectors, and lighting devices. If any device is damaged by the contractor, it shall be repaired within 72 hours by the contractor at no cost to the Administration after notification by the Engineer.
- The pushbuttons are to be located so that they can be activated by a person in a wheelchair reaching less than 18" from a 60" X 60" level landing area with a cross slope of less than or equal to 2%.
- APS will function as follows:
To cross N Salisbury Blvd
A. When pedestrian locates and presses the pushbutton for an extended time, the message will be "Wait to cross Salisbury at Olive, wait".
B. When walk phase begins, the message will be a rapid tick which shall last for the duration of the walk phase.
- Location of APS pushbuttons must meet location requirements of MUTCD Section 4E.09 and Figure 4E.2, and the NCHRP publication "Accessible Pedestrian Signals: Guide to best practice". If not met, the contractor is to stop work on pushbutton locations until a design waiver is obtained and approved by the Director, Office of Traffic and Safety.

CONTACTS

DISTRICT	OFFICE OF TRAFFIC AND SAFETY
MR. DONNIE L. DREWET DISTRICT ENGINEER 410-677-4006	MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. KENNETH CIMINO ASSISTANT DISTRICT ENGINEER - TRAFFIC 410-677-4040	MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. BRUCE POOLE ASSISTANT DISTRICT ENGINEER - UTILITIES 410-677-4082	MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS 410-787-7650
GREG HOLSEY ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 410-677-4020	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS 410-787-7670
WAYNE WEICHMAN ASSISTANT DISTRICT ENGINEER - MAINTENANCE 410-677-4010	MR. MIKE STOCKER SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE STATE HIGHWAY ADMINISTRATION.	UNITS	QUANTITY
CATEGORY CODE NO.	DESCRIPTION	
900000	BASE MOUNTED (SIZE 6) CABINET AND CONTROLLER (MSHA SPECIFICATION) WITH VIDEO DETECTION INTERFACE EQUIPMENT FOR 1-4 CAMERAS	EA 1
900000	VIDEO DETECTION INTERFACE EQUIPMENT FOR 5-8 CAMERAS	EA 1
973023	SHEET ALUMINUM SIGNS CONSISTING OF:	SF 167.5
	R1-1 (30"x30") GROUND MOUNT	EA 1
	R1-1 (30"x30") POLE MOUNT	EA 1
	R3-5(L) (30"x36") MAST ARM MOUNT	EA 2
	D-3(1) (VAR. X16") MAST ARM MOUNT	EA 4
	R10-3(1) (9"x15") POLE MOUNT	EA 2
	SIGN TO READ "PUSHBUTTON TO CROSS SALISBURY BLVD"	EA 2
	M1-5(6) (48"x15") POLE MOUNT	EA 2
	M1-5(6) (30"x15") POLE MOUNT	EA 2
	D3-1 (60"x12") GROUND MOUNT	EA 2
	D95-25 (24"x24") GROUND MOUNT	EA 2
	W3-3 (36"x36") GROUND MOUNT	EA 2

EQUIPMENT LIST (CONTINUED)

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

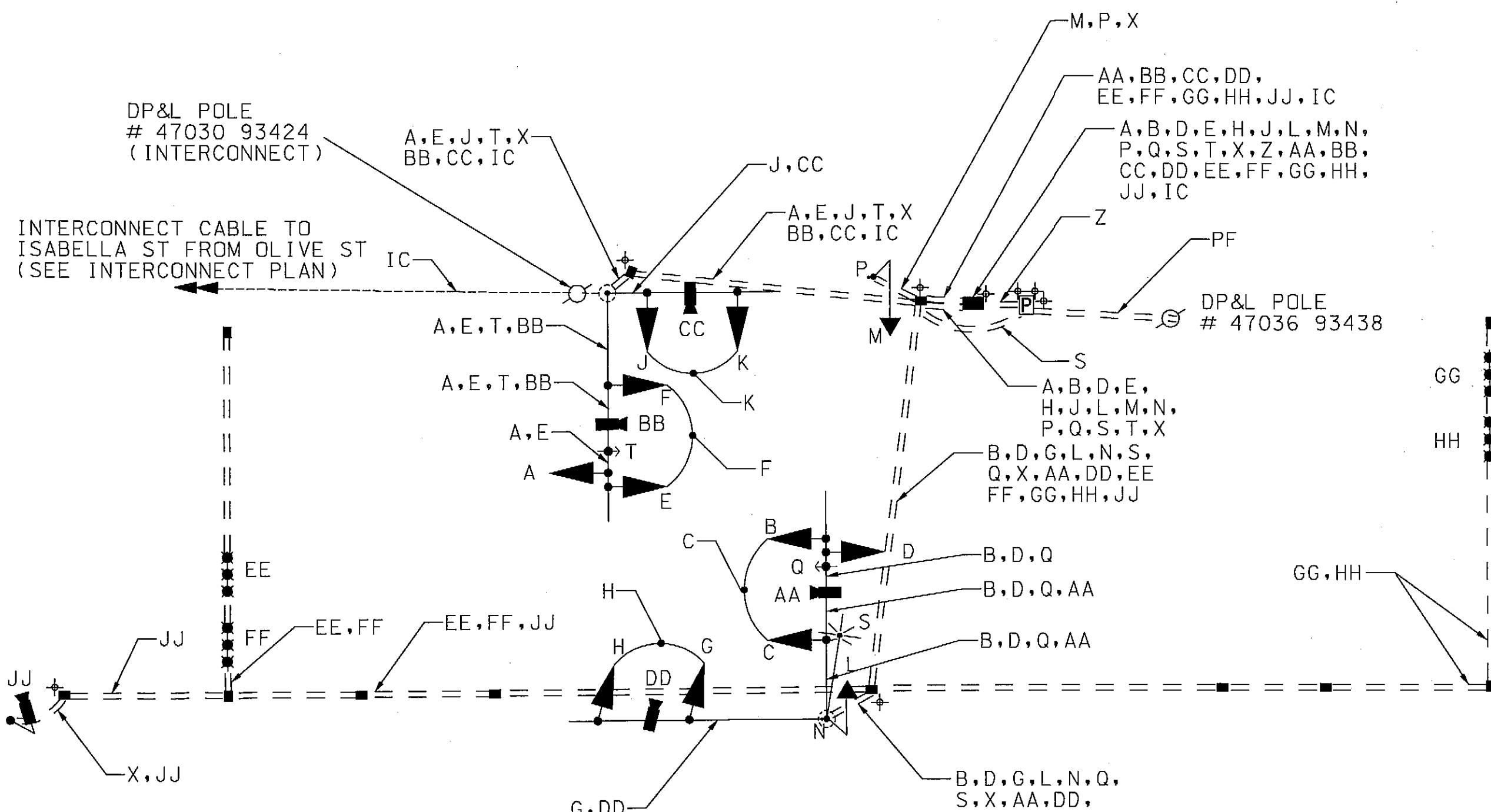
CAT CODE	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	3
585405	5 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS	LF	30
585407	5 INCH YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS	LF	125
585621	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	125
585625	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	150
585700	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH	LF	50
585705	REMOVAL OF EXISTING PAVEMENT LETTERS, SYMBOLS, ARROWS AND NUMBERS	SF	31
800000	2-WIRE CENTRAL CONTROL UNIT	EA	1
800000	VIDEO DETECTION EQUIPMENT	EA	5
800000	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON STATION	EA	2
800000	16 IN. LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT	EA	2
800000	30 FOOT STEEL LIGHTING STRUCTURE	EA	1
800000	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	6
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	8.5
801104	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	LF	44
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	EA	200
805050	WEATHER HEAD, 3 INCH	EA	1
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	250
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	400
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	130
805150	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED	LF	140
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED	LF	230
807202	METERED SERVICE PEDESTAL	EA	1
810601	NON-INVASIVE DETECTORS, 500 FOOT LEAD - IN CABLE	EA	4
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	12
812002	WOOD SIGN SUPPORT 6 INCH X 6 INCH	LF	36
813014	INSTALL GROUND MOUNTED SIGN	SF	44.25
813015	INSTALL OVERHEAD SIGN	SF	123.25
813022	REMOVE EXISTING GROUND MOUNTED SIGNS	SF	9.25
813023	RELOCATE EXISTING GROUND MOUNTED SIGNS	SF	2
816201	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764	EA	1
816215	OPTICOM NO. 721 DETECTOR EYE	EA	2
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	1
818021	STEEL POLE WITH TWIN 50 FOOT MAST ARM	EA	2
821002	BREAKAWAY BASE SUPPORT SYSTEM FOR LIGHTING STRUCTURE	EA	1
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	1
832017	CABLE - 1 CONDUCTOR, NO 4 AWG, TYPE USE, 600V	LF	75
837001	GROUND ROD - 3/4 INCH DIAMETER X 10' LENGTH	EA	8
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	32
860288	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE	LF	250
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	4
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)	LF	150
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)	LF	240
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)	LF	850
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	130
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
PHASE 1 AND 5	+GR	+GR	R	+GR	+GR	R	R	R	R	R	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6												
PHASE 1 AND 6	+GG	+GG	G	R	R	R	R	R	R	R	DW	DW
1 AND 6 CHANGE	+YG	+YG	G	R	R	R	R	R	R	R	DW	DW
PHASE 2 AND 5	R	R	R	+GG	+GG	G	R	R	R	R	DW	DW
2 AND 5 CHANGE	R	R	R	+YG	+YG	G	R	R	R	R	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	R	G	G	G	G	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	FLDW/FLDW	FLDW/FLDW
4 AND 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK

KEY

- A,B,D,E,G,J } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C,F,H,J,L,M } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- Q,T } 4 CONDUCTOR OPTICOM CABLE
- N,P } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- AA,BB,CC,DD,JJ } VIDEO DETECTION CABLE
- EE,FF,GG,HH } NON-INVASIVE DETECTOR LEAD-IN CABLE
- S } 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
- X } 1 CONDUCTOR (NO. 6 AWG) BARE STRANDED COPPER GROUND WIRE
- PF } POWER FEED (BY OTHERS)
- Z } 3 WIRE 1 CONDUCTOR (NO. 4 AWG)
- IC } INTERCONNECT CABLE
- * GROUND ROD



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SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 13 BUSINESS (N SALISBURY BLVD) AT OLIVE STREET
SALISBURY, MARYLAND

TRAFFIC SIGNALIZATION PLAN

SCALE	NTS	DATE	SEPTEMBER 2010	CONTRACT NO.	WJ3285274
DESIGNED BY	VN	COUNTY	WICOMICO		
DRAWN BY	VN	LOGMILE	23001306.02		
CHECKED BY	SD	T.I.M.S. NO.	G895		
F.A.P. NO.	SEE TITLE SHEET	TOD NO.			
TS NO.	4748	DRAWING NO.	pSG	OF	N001
				SHEET NO.	OF